

I. AMENDMENT

Please cancel claims 33-36, 39 and 42 without prejudice.

Please add new claims 45-52 as follows:

45. (NEW) A fence assembly for supporting a workpiece relative to a saw blade of a saw, the fence assembly comprising:

a fence channel having first and second ends;

a head assembly coupled to the first end of the fence channel, the head assembly including a housing and a handle cam, the handle cam defining a handle portion and a camming portion situated in the housing;

a locking pawl proximate the second end of the fence channel;

a rod interconnecting the camming portion and the locking pawl; and

at least one annular bearing situated in the housing, the annular bearing receiving the camming portion such that the handle cam is rotatably supported only by the annular bearing to eliminate direct contact between the camming portion and the housing, wherein the camming portion rotates within the annular bearing upon actuation of the handle portion to move the rod, and thus the locking pawl, towards the head assembly.

46. (NEW) The fence assembly of claim 45, wherein said handle cam is of a single piece construction.

47. (NEW) The fence assembly of claim 46 wherein said handle cam is constructed out of injection-molded plastic.

48. (NEW) The fence assembly of claim 45, wherein said annular bearing comprises two annular bearings.

49. (NEW) The fence assembly of claim 48, wherein the annular bearings are situated on either side of the camming portion.

50. (NEW) A table saw comprising:

a base;
a table connected to the base and having an upper surface;
a blade extending through the table;
a first rail connected to a first side of the table;
a second rail connected to a second side of the table;
a fence channel having first and second ends;
a head assembly coupled to the first end of the fence channel, the head assembly slidably received by the first rail and including housing and a handle cam, the handle cam defining a handle portion and a camming portion situated in the housing;
a locking pawl proximate the second end of the fence channel;
a rod interconnecting the camming portion and the locking pawl; and
at least one annular bearing situated in the housing, the annular bearing receiving the camming portion such that the handle cam is rotatably supported only by the annular bearing to eliminate direct contact between the camming portion and the housing, wherein the camming portion rotates within the annular bearing upon actuation of the handle portion to move the rod, and thus the locking pawl, towards the second rail to apply a clamping pressure to the second rail.

51. (NEW) The table saw of claim 50, further comprising a microadjust assembly including:

a knob handle rotatably coupled to the head assembly;
a bumper operatively connected to the knob handle, the bumper comprising an elastomeric material and defining a substantially smooth outer surface; and
a spring biasing the knob handle and the bumper towards a first position wherein the bumper is not in physical contact with the first rail, the knob handle being movable to a second position wherein said bumper engages said first rail and moves said head assembly due to friction contact between the bumper and the surface of the front rail in response to rotation of said knob handle.

52. (NEW) The table saw of claim 50, wherein:

the head assembly includes a lower surface that defines a radius; and

the first rail includes a curved profile portion that defines a radius that substantially matches the radius of the lower surface, such that the curved profile portion receives the lower surface of the head assembly to self align the fence channel with the blade.

II. RESPONSE TO OFFICE ACTION

This CPA is filed in response to the Office Action mailed on July 5, 2001. Claims 33-36, 39 and 42 have been canceled, and claims 45-52 have been added herein. Hence, claims 45-52 are currently pending. No new matter has been introduced via the addition of claims 45-52.

This application, as originally filed on October 8, 1999, was a divisional of Application Serial No. 09/416,210 ("the '210 application"), which currently stands abandoned. A final office action was issued in the '210 application on May 15, 2000 ("the '210 application final office action"). Applicants filed a response to the '210 application final office on September 15, 2000, with a request for one-month extension and a certificate of transmission under 37 CFR 1.8 executed by the Applicants' undersigned representative. Copies of the September 15, 2000 response and fax confirmation sheet were provided with the response filed by Applicants on April 10, 2001.

Apparently, the September 15, 2000 response was lost or otherwise not received by the office and the '210 application was considered abandoned. For sake of simplicity, the claims of the '210 application have been presented in this CPA to replace claims 33-36, 39 and 42 previously pending in this divisional application, which have been canceled without prejudice.

Reconsideration of the present application is respectfully requested in light of the foregoing amendments and the following remarks, which address the issues raised in the '210 application final office action.

Interview

A personal interview was conducted on July 21, 2000, between the undersigned and Examiner Clark Dexter to discuss issues raised in the '210 application final office action. The

Examiner's participation in the interview is greatly appreciated. As noted in the interview summary prepared by the Examiner for the '210 application, differences between the present invention and the prior art, particularly U.S. Patent No. 5,181,446 to Theising ("Theising") were discussed.

Claim Objections

Section 2 of the '210 application final office action objected to claims 47 and 49 due to errors in claim dependency. The claims as presented herein address and overcome these objections.

Claim Rejections – 35 USC § 112

Section 3 of the '210 application final office action rejected claims 45-52 under 35 USC 112, second paragraph as being indefinite. The '210 application final office action stated that claiming the "handle cam" separate from the head assembly made the claim vague. Claims 48 (now claim 45) and 50 have both been amended to clarify the claim language. Regarding the head assembly and handle cam, the claims clearly state that the handle cam is a part of the head assembly, and further, that the camming portion of the handle cam is situated in the housing of the head assembly. *See, e.g.*, Figures 3 and 4 of the present application.

The '210 application final office action further rejected claim 50 with regards to the "upper surface" language. Claim 50 has been amended as suggested in the '210 application final office action.

Applicants thus believe that the rejections under section 112 from the '210 application final office action have been overcome.

Claim Rejections – 35 USC § 103

Sections 4-6 of the '210 application final office action rejected claims 45-50 under 35 U.S.C. 103(a) as allegedly being unpatentable over various prior art references. These rejections are addressed in turn as follows.

Claims 45-50—

Section 3 of the '210 application final office action rejected claims 45-50 as allegedly being unpatentable over Theising. Applicants respectfully traverse these rejections.

Claim 45 corresponds to claim 48 of the '210 application. Claims 45 and 50, as presented herein, more clearly recite the structure regarding the handle cam and annular bearing. The '210 application final office action admits that Theising fails to disclose or suggest providing an annular bearing, but alleges that it would be obvious to provide a bearing between the handle cam and rod element of Theising. As illustrated in Figure 2 and described at col. 6, ll. 27-42 of Theising, the handle assembly 53 includes a spherical portion 65 to which the rod 55 is connected. Rotating the handle 69 downwardly causes the portion 65 to engage an element 67 and draw or pull the rod 55.

As noted in the background section of the present specification, an arrangement such as disclosed in Theising is prone to premature wear, due to the friction between the camming portion 65 and wear plate element 67. In claims 45 and 50, the annular bearing receives "the camming portion such that the handle cam is rotatably supported only by the annular bearing to eliminate direct contact between the camming portion and the housing..." The annular bearing thus eliminates the contact between the camming portion and a wear surface such as element 67